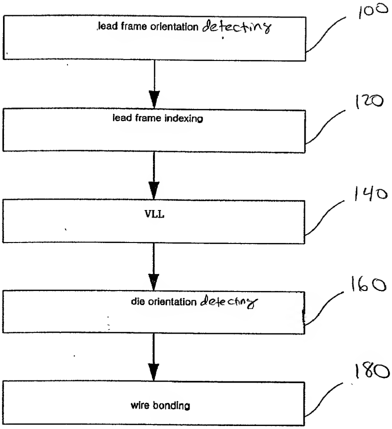
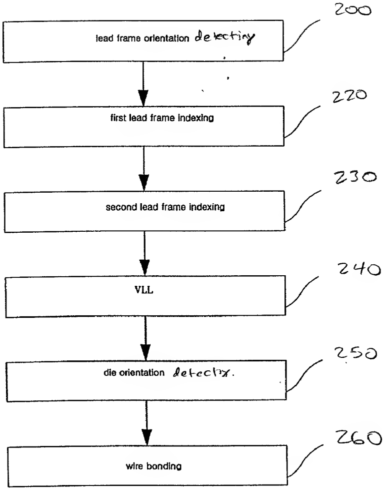
Fig.1



lead frame orientation detecting
100
lead frame indexing
120
VLL
140
die orientation detecting
160
wire bonding
180

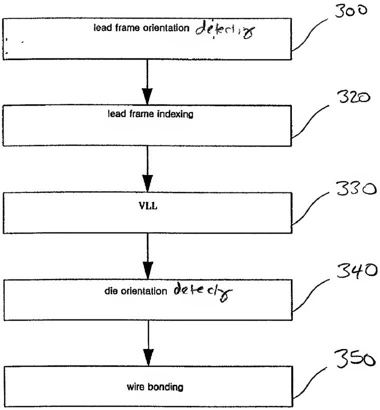
09758325.011001

Fig.2


200
lead frame orientation detecting
220
first lead frame indexing
230
second lead frame indexing
240
VLL
250
die orientation detecting.
260
wire bonding

09/583325.071001

Fig.3



300
lead frame orientation detecting
320
lead frame indexing
330
VLL
340
die orientation detecting
350
wire bonding

Fig. 4D

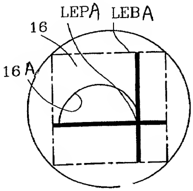
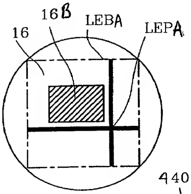

LEPA
LEBA
16
16A

Fig. 4B


16B
LEBA
16
LEPA

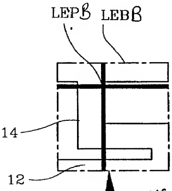

LEPB
LEBB
14
12

FIG. 4C

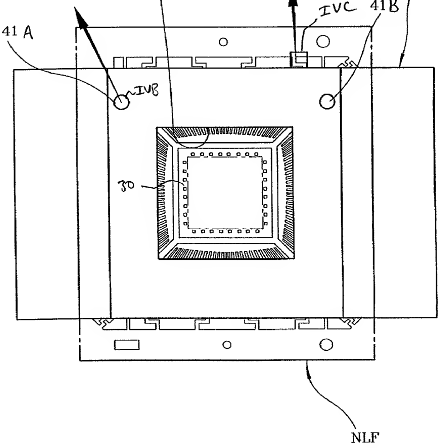

440
400
IVC
41B
41A
IVB
30
NLF

Fig. 4A

09585325.041701

Fig.5B

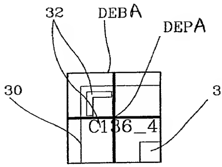

32
DEBA
DEPA
30
33
C136_4

Fig.5A

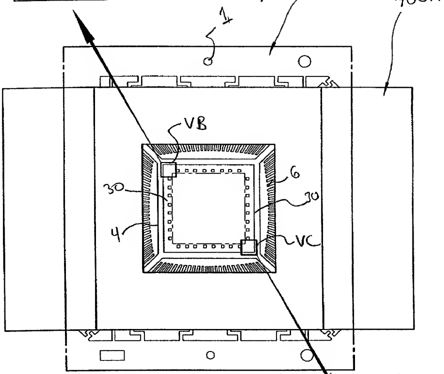
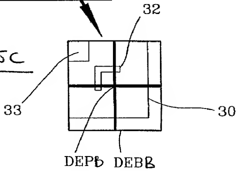
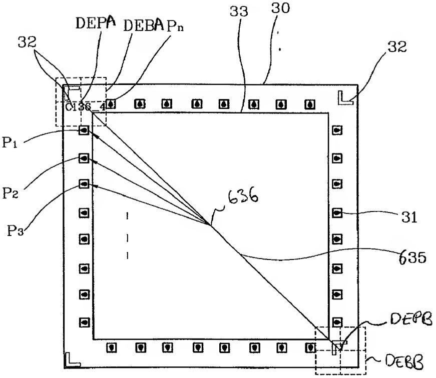

1
NLF
400A
VB
6
30
30
4
VC

Fig.5C


32
33
30
DEPb
DEBB

09758525.011001

Fig.6


DEPA
DEBA
Pn
33
30
32
32
C136_4
P1
P2
P3
636
31
635
DEPB
DEBB

09758325.011001

Fig.7B

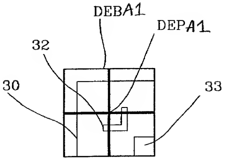

DEBA1
DEPA1
32
30
33

Fig. 7A

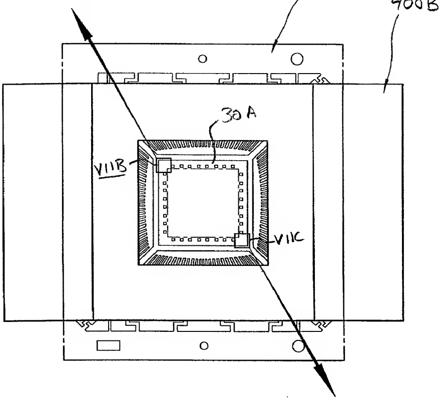
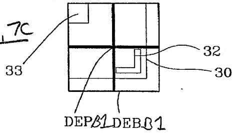

NLF
400B
30A
VIIB
VIIC

Fig. 7C


33
32
30
DEPB1
DEBB1

09725325.041001

Fig.8A

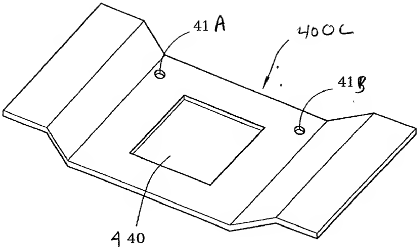
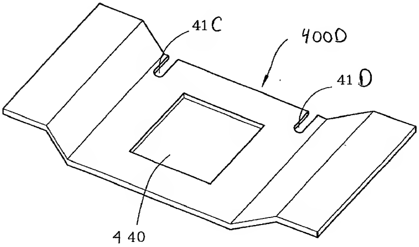
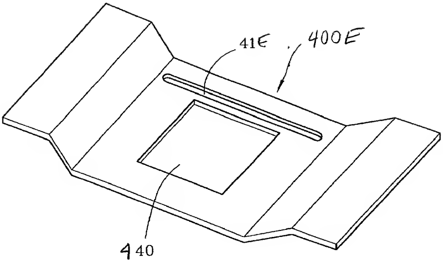

41A
400C
41B
440

Fig.8B


41C
400D
41D
440

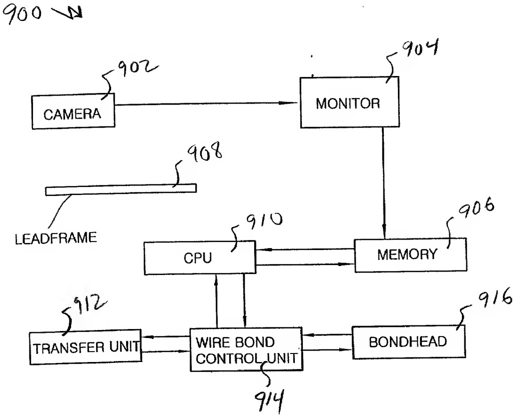
09/583525.041001

Fig.8C


41E
400E
440

09583825 .071001

Fig.9 –PRIOR ART–


900
902
CAMERA
904
MONITOR
908
LEADFRAME
910
CPU
906
MEMORY
912
TRANSFER UNIT
WIRE BOND CONTROL UNIT
914
916
BONDHEAD

09758325 .011001

Fig.10A   -PRIOR ART-

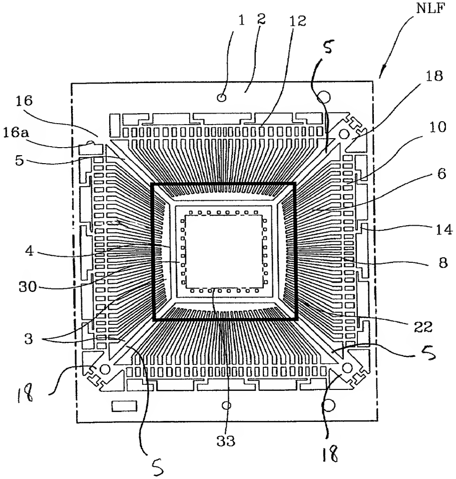
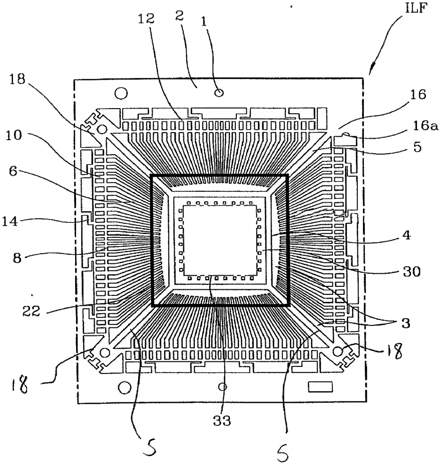
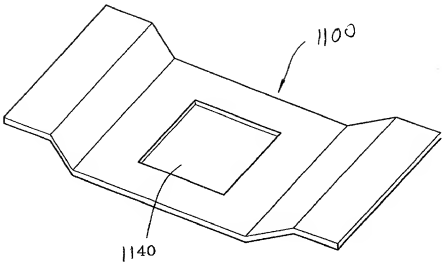

NLF
1
2
12
5
18
16
16a
5
10
6
14
4
8
30
22
3
5
18
5
33
18

Fig.10B —PRIOR ART—


ILF
12
2
1
18
16
16a
10
5
6
14
4
8
30
22
3
18
18
33
5
5

09592325 .041001

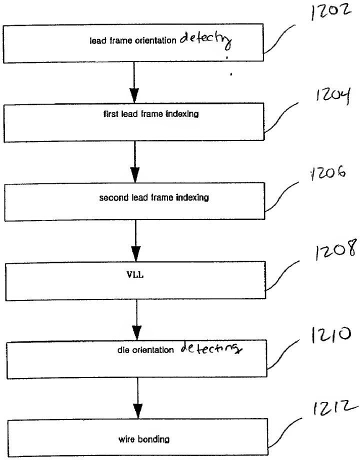
Fig.11 -PRIOR ART-



09785325.021501

Fig.12

–PRIOR ART–


1202
lead frame orientation detecting
1204
first lead frame indexing
1206
second lead frame indexing
1208
VLL
1210
die orientation detecting
1212
wire bonding

09758325 .011001

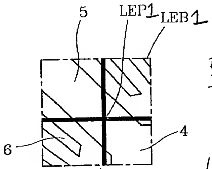

5
LEP1
LEB1
6
4

Fig. 13B

- PRIOR ART -

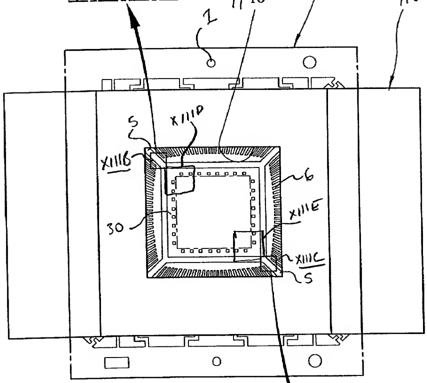

NLF
1140
1100
1
5
X111D
X111B
6
30
X111E
X111C
5

Fig. 13A

-PRIOR ART-

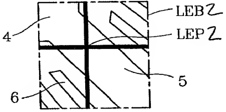
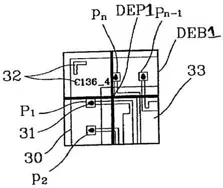

LEB2
LEP2
4
5
6

Fig. 13C

- PRIOR ART -

09/583325.011001

Fig.13D -PRIOR ART-

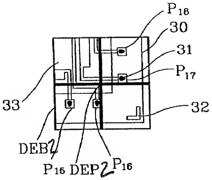


P_n
DEP1
P_{n-1}
DEB1
33
32
C136_4
P_1
31
30
P_2

09758325.071801

Fig. 13E

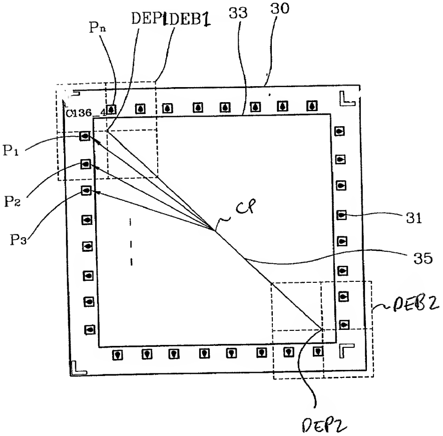
-PRIOR ART-



P_{18}
30
31
P_{17}
33
32
DEB2
P_{15}
DEP2
P_{16}

Fig.14

-PRIOR ART-


Pn
DEP1
DEB1
33
30
C136_4
P1
P2
P3
CP
31
35
DEB2
DEP2

09758325.011001